

REMARKS/ARGUMENTS

Favorable consideration of this application in light of the following discussion is respectfully requested.

Claims 1-11 are pending in the application, Claims 12-25 having previously been canceled. No claim amendments are presented, thus, no new matter is presented.

In the outstanding Official Action Claims 1, 2 and 4-11 were rejected under 35 U.S.C. § 102(e) as being anticipated by Epstein (U.S. Patent No. 6,490,355 hereinafter, "Epstein"); and Claim 3 was rejected under 35 U.S.C. § 103(a) as being unpatentable over Epstein, and further in view of Bernecker (U.S. Patent No. 5,435,599).

The Office Action asserts that Epstein teaches all the elements of independent Claims 1, 4-6 and 9-11. Applicants respectfully traverse this assertion, as independent Claims 1, 4-6 and 9-11 state novel features clearly not taught or rendered obvious by the applied references.

Independent Claim 1 relates to a transmitter device that transmits content to a receiver device by accessing a recording medium that stores both the content and management data that is changed based on usage of the content. The transmitter device comprises:

storage means for storing a hash value calculated on the basis of the management data;

communication means which, in authenticating of the receiver device, transmits the management data to the receiver device and ***receives a hash value calculated on the basis of the management data and a hash value calculated on the basis of management data changed based on the usage of the content from the receiver device;***

determination means for determining whether the hash value of the management data received by the communication means matches the hash value of the management data stored in the storage means; and

updater means for updating the hash value of the management data stored in the storage means to the hash value of the changed management data.

Claims 1, and 4-5 are directed to a transmitter; Claims 6 and 9-10 are directed to a receiver; and Claim 11 is directed to a system including both a transmitter and receiver for performing a cross authentication procedure, as discussed below.

A non-limiting exemplary embodiment of the cross authentication process is described, for example, at Fig. 5, and p. 10-12 and 17-19 of the specification. A computer (receiver) is connected to a DVD drive (transmitter) via a network. The computer performs a cross authentication with the DVD drive before supplying content data, such as sound or images (moving images or still images). In the cross-authentication process, the computer receives content management data describing the usage conditions related to the content data supplied by the DVD drive. The computer then updates the content management data in accordance with the usage of the content data by the computer (e.g., decrement a count value in response to the reproduction and copying of the content data).

After updating the management data, the computer determines hash values of the received content management data and the updated content management data by applying a hash function to each of the content management data received from the DVD drive and the updated content management data. The computer then sends the hash values of the received content management data and the updated content management data to the DVD drive. After the cross-authentication process with the DVD drive, the computer receives, from the DVD drive, the content data (encrypted), namely, data such as sound and images, and a content key that has encrypted the content data. The computer decrypts the content data with the content key, and reproduces the decrypted content data.

Turning to the applied reference, Epstein describes a copy protection system. In Epstein's system, a source device (230) produces a ticket and a watermark using a first time reference and a hashing function, and provides a data stream containing the content, the ticket, the watermark, and the first time reference to the receiver device (240).¹ The receiver then compares the first time reference to a second time reference, and compares the ticket to

¹ Epstein, Abstract.

the watermark using the first time reference and the one-way function, and based on the comparison, produces a signal indicating the copy protection status of the content.²

Epstein, however, fails to teach or suggest a transmitter device which transmits management data to the receiver device and *receives a hash value calculated on the basis of the management data and a hash value calculated on the basis of management data changed based on the usage of the content from the receiver device*, as recited in independent Claim 1.

In addressing the features of Claim 1, the Official Action relies on col. 8, lines 10-51 of Epstein. This cited portion of Epstein describes the above mentioned process performed by the source (230) to calculate a hashing function to derive a physical watermark. A hash of the physical mark is calculated to derive the ticket, which is transmitted along with the watermark and the time reference to the receiver or sink device (240). Thus, the cited portion of Epstein describes a process of calculating a hash value corresponding to copy protection data that is transmitted from the source (230) to the sink (240) (e.g., from the transmitter to the receiver), not from the sink (e.g., receiver) to the source (e.g. transmitter). Epstein, therefore, fails to teach or suggest *receiving, from the receiver device*, a hash value calculated on the basis of the management data and a hash value calculated on the basis of management data changed based on the usage of the content from the receiver device, as recited in independent Claim 1.

Further, upon receiving the digital data including the copy protection information, the source (240) extracts the watermark, ticket, and time reference signal and processes the time reference signal and the ticket to determine if playback of the content is authorized.³ However, Epstein fails to teach or suggest that any management data is updated by the sink, or transmitted back to the source, whatsoever. Specifically, the sink (240) in Epstein does not

² Id.

³ Id., col. 9, line 22-col. 10, line 19.

transmit a hash value calculated on the basis of the management data *and a hash value calculated on the basis of management data changed based on the usage of the content* to the source (230) or transmitter. Specifically, Epstein fails to teach or suggest that the sink (230) changes the management data based on the usage of the content, or that the sink transmits any hashed management data back to the source (e.g. transmitter), as recited in independent Claim 1.

Accordingly, Applicants respectfully request that the rejection of independent Claim 1 under 35 U.S.C. § 102(e) be withdrawn. For substantially similar reasons, Applicants submit that independent Claims 4-6 and 9-11 also patentably define over Epstein.

Claim 3 was rejected under 35 U.S.C. § 103(a) as being unpatentable over Epstein in further view of Bernecker. As discussed above, Epstein fails to teach or suggest the above differentiated features recited in the pending independent claims. Likewise, Bernecker fails to remedy this deficiency, and therefore, none of the cited references, neither alone nor in combination teach or suggest Applicant's Claim 3, which includes the above distinguished features by virtue of dependency.

Accordingly, Applicants respectfully request that the rejection of Claim 3 under 35 U.S.C. § 103(a) be withdrawn.

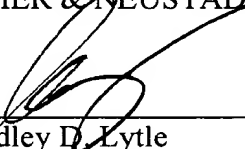
Consequently, in view of the present amendment and in light of the foregoing comments, it is respectfully submitted that the invention defined by 1-11 is patentably distinguishing over the applied references. The present application is therefore believed to be in condition for formal allowance and an early and favorable reconsideration of the application is therefore requested.

Respectfully submitted,

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